
PHYS-1050-01 & 02

Mechanics

Course Description

This course is an algebra-based survey of classical mechanics, the foundation of all of physics. We will study the kinematics (how things move) and dynamics (why they move) of particles and systems. We work with: Newton's laws of motion; Newton's law of gravitation; work, energy, and the conservation of energy; linear momentum and its conservation; rotational motion and static equilibrium.

Learning Outcomes

On successful completion of this course, you will be able to:

1. Solve a problem in mechanics conceptually using physics principles.
2. Solve a problem in mechanics mathematically, using physical principles, algebra and trigonometry.
3. Conduct a laboratory experiment by taking careful measurements, estimating uncertainties, and drawing conclusions, including comparisons to physical constants or laws.
4. Write a lab report that summarizes your lab work clearly and concisely.

Required Course Materials

Text: Physics 7th Edition, by Douglas Giancoli. You may use the "A la carte" (loose-leaf format) or a hardbound format. This text is used for the entire PHYS 1050, 1060, 1070 sequence. Get the option with Mastering Physics.

Laboratory Notebook: Any notebook with sewn-in, numbered pages, such as "Stitched Lab Book" (77571), or "Computation Notebook" (43648) in the bookstore.

Students need to purchase the course lab pack at SuperCopy (ahead of the first lab).

Fall 2016

MWF 12:30PM-1:40PM in BANN 402

01 Lab: M 2:05PM-4:50PM BANN 307

02 Lab: TU 1:30PM-4:15PM BANN 307

Instructor: Dr. Steve Andrews

E-Mail: andrewss@seattleu.edu

Phone: X5938

Office: BANN 319

Office Hours: TU 10:00 - 1:15

Use of Course Materials

Distributed course materials, including problem sets, exams and supplementary handouts are for your personal use in this course. You may not distribute them unless you have the permission of the instructor. This includes physical and electronic copies.

Short Policies

Homework

We are trying out MasteringPhysics, an online homework system. Watch Canvas for the homework assignments to be posted.

Calculators

A scientific calculator is necessary but a graphing calculator is not.

Cell Phones

Turn cell phone off during class. You are not allowed to use smart phones as your calculator during exams.

Evaluation

10% Homework (approximately weekly)

50% Midterms

20% Final

20% Laboratory

Grades will not be assigned using a curve. However, the class average is typically between a B- and B.

<u>Course Average</u>	<u>Grade</u>
85-100%	A
70-84%	B
55-69%	C
40-54%	D
<40%	F

Your exam grade that has the lowest score will be dropped, regardless of whether it is a midterm or final.

No makeup exams in the course. If you miss an exam for any reason, it becomes your lowest score and will be replaced by another exam score. In order to pass the course, the weighted average of your exam scores must be a passing grade.

The lowest homework grade will also be dropped.

Mastering Physics

website: <http://session.masteringphysics.com>

Assignments are due at 12:30 pm (start of class). Late work loses 10% per day, up to 100%. You can attempt each question 3 times, but you lose 33% of the credit for each incorrect answer. There is no penalty for using the on-line hints.

Academic Support

Excellent academic support services are available to you at Seattle University:

LIBRARY AND LEARNING COMMONS
<http://www.seattleu.edu/learningcommons/>

WRITING CENTER

The Writing Center employs undergraduate writing consultants who assist students at all stages of the writing process. Consultants will help students begin writing tasks, organize and develop first drafts, and revise and edit later drafts.

LEARNING ASSISTANCE PROGRAMS

Learning Assistance Programs provide peer tutoring, facilitated study groups, and learning strategy development through scheduled workshops and individual meetings with a learning specialist.

MATH LAB

The Math Lab is a drop-in service available to students enrolled in lower division mathematics courses. Students can stop by the lab to work with a tutor who will assist them with their particular mathematics assignments.

ACADEMIC INTEGRITY TUTORIAL

<https://www.seattleu.edu/academicintegrity/>
Academic integrity is essential in this course. You are encouraged to work together and discuss homework problems and lab writing assignments, but the lab reports you turn in should be your own work. You may not give or receive any help on quizzes or exams.

General course and university policies:

SUPPORT FOR STUDENTS WITH DISABILITIES
If you have, or think you may have, a disability (including an “invisible disability” such as a learning disability, a chronic health problem, or a mental health condition) that interferes with your performance as a student in this class, you are encouraged to arrange support services and/or accommodations through Disabilities Services staff located in Loyola 100, (206) 296-5740. Disability-based adjustments to course expectations can be arranged only through this process.

ACADEMIC POLICIES ON THE REGISTRAR WEBSITE

<https://www.seattleu.edu/redhawk-axis/academic-policies>
Be sure that you understand the following university academic policies, posted on the Registrar’s website:
ACADEMIC INTEGRITY POLICY
ACADEMIC GRADING GRIEVANCE POLICY